

let-antiaggregation agent that is currently being tested against aspirin for this indication in a large, multicenter, randomized and double-blind trial that will be completed in early 1988.⁵ Perhaps its use will be beneficial, even in women.

Rothrock has reviewed the status of anticoagulation. A major focus in this regard in recent years has been on the rising risk of atrial fibrillation.⁶ The incidence of this condition not due to rheumatic heart disease increases with increasing age and, by age 80 years, about 15% of Americans will be in atrial fibrillation.⁷ The risk of stroke in these persons is the same as that for those with new-onset atherothrombotic TIA, about 6% per year—greater in the first year after onset for both atrial fibrillation and transient ischemic attack.⁶ Although we can identify the population with atrial fibrillation at high risk for stroke, we do not know what treatment to recommend. Extrapolating from meager data regarding anticoagulation in patients with rheumatic atrial fibrillation, we believe anticoagulation may be effective. On the other hand, long-term anticoagulation of elderly patients, many of whom are hypertensive, is known to be hazardous. Thus we need to know if the benefits would outweigh the risks, even if anticoagulation were proved effective. Two multicenter studies in progress in the United States are investigating this issue. One is testing low-dose warfarin sodium administration against placebo and the other is testing giving low-dose warfarin versus low-dose aspirin versus placebo in a three-armed trial. It will be a few years before the results are available to guide us.

The role for carotid endarterectomy in preventing stroke is indeed unclear, yet the operation will be done approximately 180,000 times in the United States this year, half for asymptomatic carotid disease, at a cost of more than \$1 billion. While the single randomized study of this procedure is interpreted by some writers to have suggested a benefit from the operation,⁸ I and others⁹ believe it showed no benefit. The results were not powerful, though. The number of patients studied was small and the trial method at the time was less stringent than we now demand. A lower operative morbidity and mortality are said to be achievable in recent years, but risk-factor management and antithrombotic therapy have also improved. For all of these reasons, the time is ripe for a proper evaluation of carotid endarterectomy in stroke prevention. Two prospective, multicenter studies of this procedure for asymptomatic stenosis are in progress. A similar study of carotid endarterectomy for preventing stroke in patients with TIA and minor stroke is being mounted. This study will stratify patients according to the type of arterial lesion they have on the grounds that different types of lesions may respond differently. It is hoped the results of these very important studies will define the role of carotid endarterectomy in stroke prevention.

Rothrock's review is a fair and balanced one. It reminds us that cerebral transient ischemic attacks are but one manifestation of generalized atherosclerosis that is usually present in a

symptomatic patient. Consequently, major efforts should be directed toward modifying atherosclerosis risk factors, and restraint is warranted when considering how vigorous to be in the evaluation and management of TIA. A number of important old questions in TIA therapy are finally being addressed directly in major clinical studies, and definitive answers are imminent. Several new treatments are also on the horizon.

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It Can Be a Lethal Instrument

ELSEWHERE in this issue Sewell and colleagues report on "Injuries and Fatalities Associated With Off-Road Three Wheeled All-Terrain Vehicles." These vehicles look like oversized tricycles but they are motorized vehicles, and they are not toys. They are fast, powerful, unstable and may be difficult to control. Their use has led to an alarming number of injuries and fatalities and this number is increasing. More than a third of the injuries and almost half the deaths are reported to have occurred in children under 12 years of age.

Accidents with these vehicles result from a number of causes. Climbing a hill, rounding a corner, swerving to miss an obstacle or hitting a bump, ditch or obstruction, can cause the vehicle to overturn forward, backward or sideways, with the rider thrown from the seat or pinned beneath the vehicle. These are not machines that are safe, for young people especially. Their operation requires careful training and quick decisions involving steering, shifts of weight and adjustments of hand and foot controls. This is certainly not child's play!

Ought not there to be a law?

MSMW